

Transport Transports Canada

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TP 7245E

CF-2004-18

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Issue Date 16 September 2004

### AIRWORTHINESS DIRECTIVE

The following airworthiness directive (AD) may be applicable to an aircraft which our records indicate is registered in your name. ADs are issued pursuant to Canadian Aviation Regulation (CAR) 593. Pursuant to CAR 605.84 and the further details of CAR Standard 625, Appendix H, the continuing airworthiness of a Canadian registered aircraft is contingent upon compliance with all applicable ADs. Failure to comply with the requirements of an AD may invalidate the flight authorization of the aircraft. Alternative means of compliance shall be applied for in accordance with CAR 605.84 and the above-referenced Standard.

This AD has been issued by the Continuing Airworthiness Division (AARDG), Aircraft Certification Branch, Transport Canada, Ottawa, telephone (613) 952-4357.

# URGENT URGENT URGENT URGENT URGENT URGENT URGENT URGENT

TRANSPORT CANADA EMERGENCY AIRWORTHINESS DIRECTIVE PLEASE FORWARD IMMEDIATELY TO THE PERSON RESPONSIBLE FOR THE OPERATION AND MAINTENANCE OF YOUR AIRCRAFT

Number:

CF-2004-18

Subject:

Bombardier CL-600-2B19 "Regional Jet" - Main Landing Gear Main Fittings

Effective:

16 September 2004

Applicability:

Bombardier Inc. Model CL-600-2B19 "Regional Jet" aircraft equipped with main landing gear main fittings, P/N 601R85001-3 or 601R85001-4 (MDI P/N 17064-101, 17064-102,

17064-103 or 17064-104).

Compliance:

When indicated, unless already accomplished.

Background:

One report has been received of the main landing gear main fitting cracked at the section between the forward face of the main fitting on the trunnion side and the area just above the shock strut upper attach lug radius. Laboratory examination has found that the fatigue crack was initiated from a corrosion pit located on the chamfer of the inner bore of the pintle pin socket of the main landing gear main fitting. Failure of the main fitting could result in the collapse of the main landing gear.

# Corrective Action:

# Part I - Detailed Visual Inspection of Lateral Surface of Main Fittings

- For each main fitting, upon accumulating a total of 8,000 flight cycles since new, or 8,000 flight cycles since last overhaul of the main landing gear, or within 50 flight cycles after the effective date of this directive, whichever occurs later, perform a detailed visual inspection to detect crack in accordance with Part A of the Accomplishment Instructions of Bombardier Alert Service Bulletin (ASB), A601R-32-099, dated 15 September 2004, or later revisions approved by the Chief. Continuing Airworthiness, Aircraft Certification, Transport Canada.
- Subsequently, at intervals not to exceed five (5) days, repeat the inspection specified in Part I, paragraph 1 above.
- Unless required by Part II, Paragraph 3 of this directive, the repetitive inspection requirement specified in Part I, paragraph 2 above is no longer required as soon as an ultrasonic inspection as specified in Part III of this directive has been performed.
- 4. Replace cracked main landing gear main fitting prior to further flight.



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# Part II - Detailed Visual Inspection of Main Fitting Forward Bushing Sealant

- For each main fitting, upon accumulating a total of 8,000 flight cycles since new, or 8,000 flight cycles since last overhaul of the main landing gear, or within 500 flight cycles after the effective date of this directive, whichever occurs later, perform a detailed visual inspection for sealant damage or corrosion in accordance with Part B of the Accomplishment Instructions of Bombardier Alert Service Bulletin (ASB), A601R-32-099, dated 15 September 2004, or later revisions approved by the Chief, Continuing Airworthiness, Aircraft Certification, Transport Canada.
- 2. Subsequently, at intervals not to exceed 500 flight cycles, repeat the inspection specified in Part II, paragraph 1 above.
- 3. (a) Perform a detailed visual inspection of the main fitting lateral surface for cracking specified in Part I, and an ultrasonic inspection specified in Part III within five (5) days and 500 flight cycles respectively, and thereafter at intervals not to exceed five (5) days for detailed visual inspection of the main fitting lateral surface and 500 flight cycles for ultrasonic inspection if any of the following sealant damage or corrosion is detected:
  - Sealant partially or completely missing from the main fitting forward face or from the bushing flange;
  - ii. Sealant partially or completely disbonded from the main fitting forward face or from the bushing flange;
  - iii. Sealant cracked; or
  - Presence of corrosion (discoloration or red colored deposit) around the bushing flange.
  - (b) As soon as an ultrasonic inspection as specified in Part II, paragraph 3 (a) of this directive has been performed, the repetitive visual inspection for sealant damage or corrosion specified in Part II, paragraph 2 and the repetitive visual inspection of the main fitting lateral surface specified in Part II, paragraph 3 (a) are no longer required.

#### Part III - Ultrasonic Inspection of Main Fittings

- For each main fitting, upon accumulating a total of 8,000 flight cycles since new, or 8,000 flight cycles since last overhaul of the main landing gear, or within 500 flight cycles after the effective date of this directive, whichever occurs later, perform an ultrasonic inspection in accordance with Part C of the Accomplishment Instructions of Bombardier Alert Service Bulletin (ASB), A601R-32-099, dated 15 September 2004, or later revisions approved by the Chief, Continuing Airworthiness, Aircraft Certification, Transport Canada.
- 2. Subsequently, at intervals not to exceed 5000 flight cycles, unless the inspection interval has been modified by Part II, paragraph 3 of this directive, repeat the inspection specified in Part III, paragraph 1 above.
- 3. Replace cracked main landing gear main fitting prior to further flight.

Authorization: For Minister of Transport

B. Goyaniuk

Chief, Continuing Airworthiness

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Contact:

Mr. Philip Tang, Continuing Airworthiness, Ottawa, telephone (613) 952-4379, facsimile (613) 996-9178 or e-mail tangp@tc.gc.ca or any Transport Canada Centre.